

December 8, 2009

Environmental and Public Protection Cabinet
Department for Environmental Protection
Division of Water
Attn.: KPDES Branch
14 Reilly Road
Frankfort, Kentucky 40601-1190

RE: Premier Elkhorn Coal Company
DNR Permit No. 898-0694 Rv. #3
KPDES #KYG045940
Notice of Intent

Dear KPDES Branch:

Please find attached the required information for the above referenced Notice of Intent (NOI). Premier Elkhorn Coal Company is proposing to modify the currently approved KPDES permit (#KYG045940). This application is proposing to add sediment control structureS (upland dugout ponds #50, 82, & 83). The applicant is requesting that proposed Ponds #50, 82, & 83 now be covered under KPDES #KYG045940.

A representative sample from Pond 77 is being used for comparison to the dugouts being added (Ponds 50, 82, and 83). The receiving stream will be an unnamed tributary of Petty's Fork of Left Fork of Long Fork. Pond 77 discharges into the same receiving streams as the ponds being proposed. The coal seams and overburden being mined with Pond 77 is the same as that of the proposed ponds.

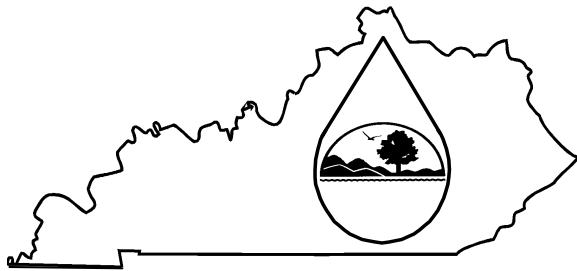
If additional information is required or if any questions arise to the enclosed information please contact me at our Pikeville office (606) 437-6223.

Sincerely,

Kyle Adams

Kyle Adams
Project Manager

FORM NOI-CM



KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)

Permit Application for General Permit Coverage For Coal Mining Operations

This is an application for:

- ☐ New mining operation coverage.
☒ Modification of coverage for additional area in same watershed.
☐ Modification of coverage for additional area in different watershed.
☐ Previously covered by an individual permit.

In order to qualify for coverage under the *Coal General Permit*, the coal mining operation must have obtained or is obtaining a Surface Mining Control and Reclamation Act (SMCRA) permit.

For additional information contact:
Surface Water Permits Branch (502) 564-3410

If Modification is checked, state reason for Modification: Addition of three (3) dug-out sediment structures to the existing KPDES permit #KYG045940.

For Agency Use	Permit No. (Leave Blank)	K	Y	G	0	4				
For Agency Use	AI ID (Leave Blank)									

SECTION I – PERMITTEE INFORMATION

Applicant Name:	Premier Elkhorn Coal Company		
Mailing Address:	P.O. Box 130	City, State, Zip Code	Myra, Kentucky 41549
Contact Name:	Stacy Billiter	Title:	Company Engineer
Contact Name:	Telephone Number: 606-639-0933	E-mail Address:	sgbilliter@tecoenergy.com

SECTION II – GENERAL SITE INFORMATION

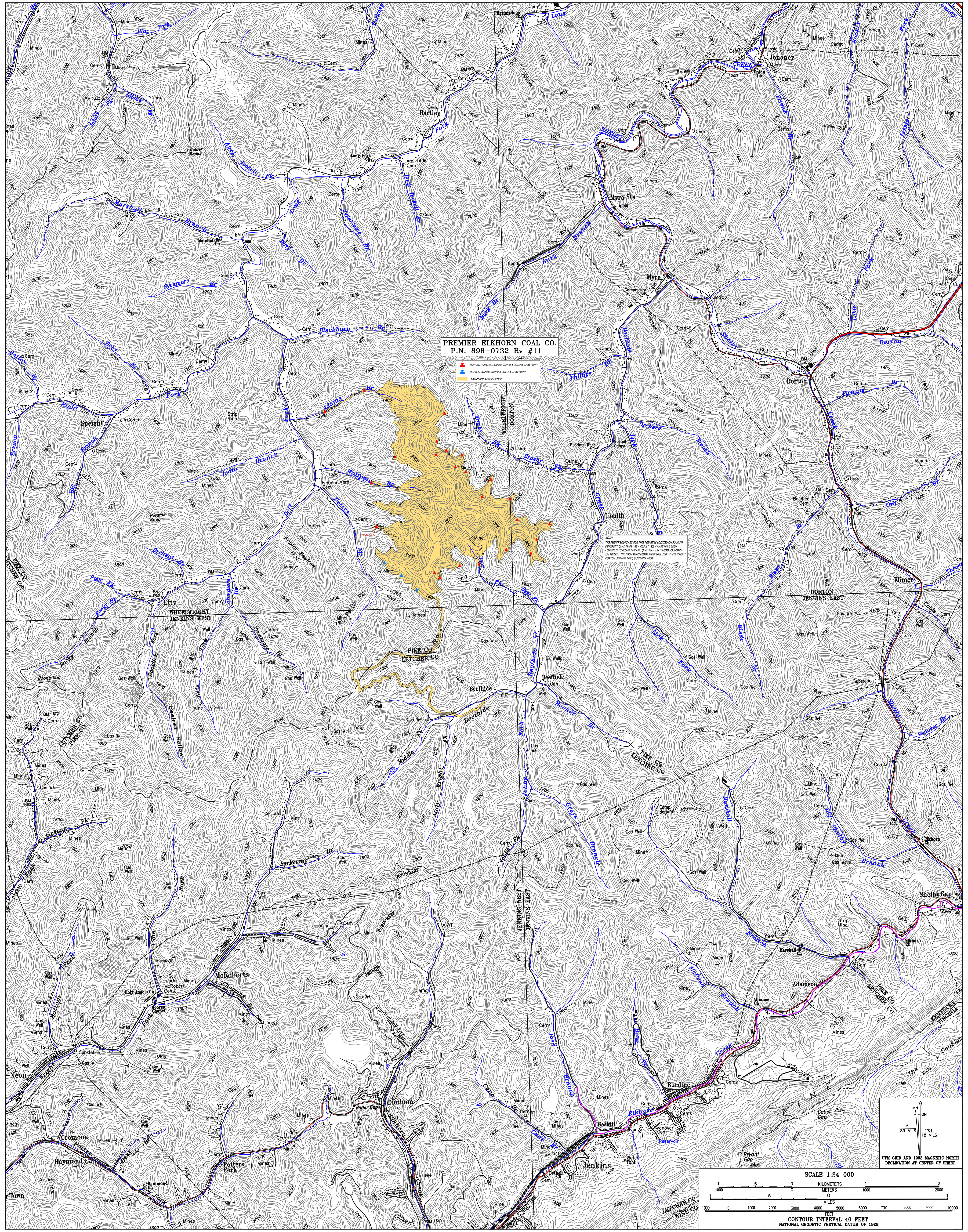
Attach an Adobe Acrobat PDF file of the full color USGS 7½-minute quadrangle map with the facility site clearly marked.			
Attach Adobe Acrobat PDF files of the Mining and Reclamation Plan map and the Environmental Resources Information map.			
For Amendments or Modifications attach a Adobe Acrobat PDF file showing only the amended or modified areas.			
SMCRA Permit Number:	898-0694 Revision #3	Type of Operation:	Surface
County where facility is located:	Pike	Nearest community:	Etty
Nearest public road intersection:	Bear Fork & Beefhide Creek	Nearest named stream:	Petty's Fork
Latitude (decimal degrees):	37-14-19	Longitude (decimal degrees):	82-37-47
Method used (see instructions):		Topo	
Surface acreage:	Current: 829.64 Amended: 741.24	Underground acreage:	Current: 310.38 Amended: 305.88

SECTION III – SPECIFIC SITE INFORMATION

Number of sediment structures proposed:	3	(complete sediment structure inventory table on page 3)
Number of fills proposed:	0	(complete fill inventory table on page 4)
Number of stream crossings proposed:	0	(complete stream crossings inventory table on page 4)
Nearest downstream public water supply:	Pikeville, KY Mountain Water District	Distance in stream miles ~30 Miles

SECTION IV – COE CWA SECTION 404 PERMIT INFORMATION

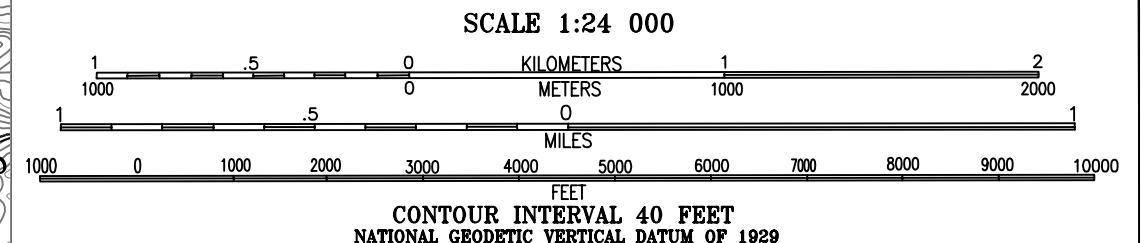
Has a Clean Water Act Section 404 permit been obtained from the Army Corps of Engineers for any or all sediment structures, fills or stream crossings?	
Permit Number:	Permit Issuance Date:
Activities covered by permit:	



PREMIER ELKHORN COAL CO.
P.N. 898-0732 Rv #11

PROPOSED BOUNDARY FOR THIS PERMIT IS LOCATED ON FOUR (4) CORNER QUAD MAPS. AS A RESULT, ALL MAPS HAVE BEEN CORRECTED TO ALLOW FOR THE QUAD MAP. FOR QUAD BOUNDARY IS LABELED. THE FOLLOWING QUADS WERE UTILIZED: WHEELWRIGHT, DORTON, JENKINS WEST, JENKINS EAST, AND ELKHORN.

UTM GRID AND 1982 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET



SCALE 1:24 000


CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

FORM NOI-CM

SECTION V – OTHER ENVIRONMENTAL APPROVALS AND PERMIT INFORMATION			
CATEGORY	EXISTING PERMIT WITH NUMBER	PERMIT NEEDED WITH PLANNED APPLICATION DATE	
401 Water Quality Certification	N/A		
Drinking Water	N/A		
Wastewater Construction	N/A		
Water Withdrawal	N/A		
Air Emissions	N/A		
Solid or Special Wastes	N/A		
Hazardous Waste Registration /Permit	N/A		

SECTION VI – EFFLUENT CHARACTERISTICS
Samples and analysis for the pollutants or pollutant characteristics listed on the Effluent Characteristics Data Sheet (page 5) shall be performed for each, sediment control structure, either existing or proposed, within each watershed. All samples and analysis are to be taken and performed in accordance with the requirements of 40 CFR Part 136. Complete an Effluent Characteristics Data Sheet for each sample collected and analyzed.

SECTION VII – BEST MANAGEMENT PRACTICES (BMP) PLAN
Check one the following boxes. <input checked="" type="checkbox"/> The generic Coal BMP Plan shall be completed and implemented for this activity within 90 days of the granting of coverage under the KPDES Coal General Permit. <input type="checkbox"/> A site specific BMP shall be developed, and implemented for this activity within 90 days of the granting of coverage under the KPDES Coal General Permit. (A copy of the BMP shall be submitted to the DOW for review and comment prior to implementation.) <input type="checkbox"/> The Oil & Grease requirements of the KPDES Coal General Permit shall be followed.

SECTION VIII – CERTIFICATION			
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.			
NAME AND OFFICIAL TITLE (Type or Print)	Robert J. Zik, Vice-President	Telephone Number: (Area Code and Number)	(606) 523-4444
SIGNATURE:		DATE:	12/3/09

SECTION IX – NOI PREPARER INFORMATION	
Preparer Name:	Mark C. Spears
Company Name	Alpine Consulting & Engineering, Inc.
Mailing Address:	P.O. Box 3203
City, State, Zip Code:	Pikeville, KY 41502
Phone Number:	Work # (606) 437- 6223 e-mail Address: mspears@alpine-eng.com

This completed application form and attachments should be sent to: Surface Water Permits Branch, Division of Water, 200 Fair Oaks Lane, Frankfort, Kentucky 40601. Questions should be directed to: Surface Water Permits Branch, Operational Permits Section at (502) 564-3410.

Sediment Structure Inventory

Instructions

ID Number:	Provide the structure's identification number.
Upland/In stream:	Indicate whether the structure is on the bench, in-stream or upland.
Permanent/Temporary:	Indicate whether the structure is permanent or temporary
Drainage Area:	Provide the contributing drainage area in acres.
Activities:	List the types of activities within the contributing drainage area, i.e; fills, haul roads, surface mines, underground mines, etc.
Latitude:	Provide the latitude of the structure.
Longitude:	Provide the longitude of the structure.
Receiving Stream:	Name of the water body, which receives the structure's discharges.

DEP 7032CM-NOI

(Continued on Back Page)

Revised April 8, 2009

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Fill Inventory

ID Number	Permanent/Temporary	Fill Size (acres)	Watershed Size (acres)	Latitude (dd-mm-ss)	Longitude (dd-mm-ss)	Impacted Stream (name)

Instructions

ID Number: Provide the structure's identification number.
Permanent/Temporary: Indicate whether the fill is permanent or temporary
Size: Provide the size of the fill in acres.
Watershed: Provide the watershed size in acres above the lowest point of the permanent fill.
Latitude: Provide the latitude of the fill.
Longitude: Provide the longitude of the fill.
Impacted Stream: Name of the water body in which the fill is being placed

(Attach additional pages if necessary)

Stream Crossings Inventory

ID Number	Permanent/Temporary	Stream Crossing Type	Watershed Size (acres)	Latitude (dd-mm-ss)	Longitude (dd-mm-ss)	Impacted Stream (name)

Instructions

ID Number: Provide the stream crossing's identification number.
Permanent/Temporary: Indicate whether the stream crossing is permanent or temporary
Type: Provide the type of crossing, i.e. bridge, culvert, low water, etc.
Watershed: Provide the watershed size in acres above the stream crossing.
Latitude: Provide the latitude of the stream crossing.
Longitude: Provide the longitude of the stream crossing.
Impacted Stream: Name of the water body in which the stream crossing is being placed

(Attach additional pages if necessary)

FORM NOI-CM

Effluent Characteristics Data Sheet – (Sample obtained from sediment structure Pond #77 on Premier Elkhorn Coal Company permit #898-0694)

Outfall No. KYG045940-077	Latitude: 37-15-37		Longitude: 82-38-45		Receiving Water: Petty's Fk. of Left Fk. of Long Fk.	
Pollutant or Pollutant Characteristic	Value	Units	Sample Type	Analytical Method Used	Method Detection Level	
Total Suspended Solids	2	mg/l	grab	SM 2540D	1	
Flow	0.0288	mgd	grab	FIELD	--	
pH	7.86	std	grab	FIELD	0.03	
Hardness (as mg/l CaCO ₃)	692.46	mg/l	grab	SM 2340B	0.02	
Sulfate (as SO ₄)	723	mg/l	grab	SM 426 C	1	
Total Recoverable Aluminum	0.059	mg/l	grab	SM 3113 B	0.002	
Total Recoverable Iron	0.06	mg/l	grab	SM 3111 B	0.03	
Total Recoverable Manganese	<0.01	mg/l	grab	SM 3111 B	0.01	
Total Recoverable Antimony	<0.002	mg/l	grab	SM 3113 B	0.002	
Total Recoverable Arsenic	<0.001	mg/l	grab	SM 3113 B	0.001	
Total Recoverable Beryllium	<0.0002	mg/l	grab	SM 3113 B	0.0002	
Total Recoverable Cadmium	<0.0002	mg/l	grab	SM 3113 B	0.0002	
Total Recoverable Chromium	<0.001	mg/l	grab	SM 3113 B	0.001	
Total Recoverable Copper	0.001	mg/l	grab	SM 3113 B	0.001	
Total Recoverable Lead	0.001	mg/l	grab	SM 3113 B	0.001	
Total Recoverable Mercury	<0.0002	mg/l	grab	SM 3112 B	0.0002	
Total Recoverable Nickel	0.008	mg/l	grab	SM 3111 B	0.005	
Total Recoverable Selenium	<0.002	mg/l	grab	SM 3113 B	0.002	
Total Recoverable Silver	<0.001	mg/l	grab	SM 3113 B	0.001	
Total Recoverable Thallium	<0.0007	mg/l	grab	EPA 200.9	0.0007	
Total Recoverable Zinc	<0.005	mg/l	grab	SM 3111 B	0.005	
Free Cyanide	<0.004	mg/l	grab	SM 4500CN-E	0.004	
Total Phenols	<0.004	mg/l	grab	EPA 420.1, Hatch 8047	0.004	
Conductivity	1060	umhos/cm	grab	SM 2510 B	1	

Instructions

Outfall Number: Provide the outfall number. (use following naming convention -KYG04XXXX-XXX)

Latitude: Provide the latitude of the discharge point or sample point.

Longitude: Provide the longitude of the discharge point or sample point.

Receiving Water: Provide the name of the receiving water discharged to or sampled

Where sample was collected: Check either sediment structure or in-stream

Value: Report the numerical results of the analysis for the pollutant or pollutant characteristic

Units: Indicate the units, i.e. mg/l, MGD, standard units, °F, etc.

Sample Type: Indicate how the sample was collected, i.e. grab, composite, weir, instantaneous, etc.

Analytical Method: Indicate the EPA test method used for analysis of the pollutant or pollutant characteristic

Method Detection Level: Indicate the MDL for the EPA test method used.

(Attach additional pages if necessary)



APPALACHIAN STATES ANALYTICAL, L.L.C.

PO Box 520
Shelbiana, KY 41562Premier Elkhorn Coal Corp.
PO Box 130
Myra, KY 41549Date Received 11/06/09
Date Reported 11/23/09
Order Number 2009-10550

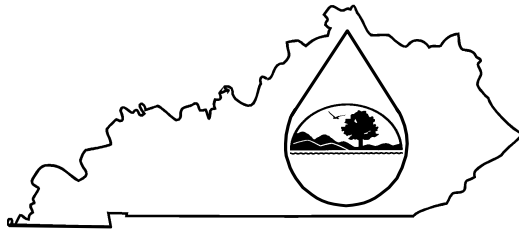
ATTN: Sid Stanley

TEST DESCRIPTION	RESULT	UNITS	METHOD	MDL	DATE	TECH
Fraction	2009-10550001					
Sample I.D	077					
	898-0694		KYG045940			
Date Sampled	11/06/2009					
Total Suspended Solids	2	mg/l	SM 2540D	1	11/09/2009	AH
Flow	0.0288	mgd			11/06/2009	LJ
pH, Field	7.86	std	SM 4500 H+ -B	0.03	11/06/2009	LJ
Hardness	692.46	mg/l	SM 2340B	0.02	11/16/2009	SJ
Sulfate	723	mg/l	SM 426 C	1	11/09/2009	TT
Specific Conductance	1060	umhos/cm	SM 2510 B	1	11/09/2009	JT
Aluminum, Total Recoverable	0.059	mg/l	SM 3113 B	0.002	11/18/2009	SJ
Iron, Total Recoverable	0.06	mg/l	SM 3111 B	0.03	11/09/2009	LMS
Manganese, Total Recoverabl	<0.01	mg/l	SM 3111 B	0.01	11/09/2009	SJ
Antimony, Total Recoverable	<0.002	mg/l	SM 3113 B	0.002	11/17/2009	SC
Arsenic, Total Recoverable	<0.001	mg/l	SM 3113 B	0.001	11/12/2009	SJ
Beryllium, Total Recoverable	<0.0002	mg/l	SM 3113 B	0.0002	11/19/2009	SJ
Cadmium, Total Recoverable	<0.0002	mg/l	SM 3113 B	0.0002	11/10/2009	SJ
Chromium, Total Recoverable	<0.001	mg/l	SM 3113 B	0.001	11/13/2009	SJ
Copper, Total Recoverable	0.001	mg/l	SM 3113 B	0.001	11/19/2009	SJ
Lead, Total Recoverable	0.001	mg/l	SM 3113 B	0.001	11/10/2009	SJ
Mercury, Total Recoverable	<0.0002	mg/l	SM 3112 B	0.0002	11/11/2009	TT
Nickel, Total Recoverable	0.008	mg/l	SM 3111 B	0.005	11/11/2009	SJ
Selenium, Total Recoverable	<0.002	mg/l	SM 3113 B	0.002	11/09/2009	SJ
Silver, Total Recoverable	<0.001	mg/l	SM 3113 B	0.001	11/20/2009	SJ
Thallium, Total Recoverable	<0.0007	mg/l	EPA 200.9	0.0007	11/18/2009	SJ
Zinc, Total Recoverable	<0.005	mg/l	SM 3111 B	0.005	11/11/2009	SJ
Free Cyanide	<0.004	mg/l	SM 4500CN-E	0.004	11/12/2009	SM
Phenols, Ky KPDES P Renewal	<0.004	mg/l	EPA 420.1, Hach 8047	0.004	11/18/2009	SC
Temperature	9.2	C	SM 2550 B	0.4	11/06/2009	LJ

* May not be within monthly permit requirements.

Submitted By:

KPDES FORM SDAA



Kentucky Pollutant Discharge Elimination System (KPDES)

Socioeconomic Demonstration and Alternatives Analysis

The Antidegradation Implementation Procedure found in 401 KAR 10:030, Section 1(3)(b)3 requires KPDES permit applications for new or expanded discharges to waters categorized as "Exceptional or High Quality Waters" to conduct a socioeconomic demonstration and alternatives analysis to justify the necessity of lowering local water quality to accommodate important economic or social development in the area in which the water is located. This demonstration shall include this completed form and copies of any engineering reports, economic feasibility studies, or other supporting documentation

I. Project Information

Facility Name: Bear Fork Surface Mine

Location: Bear Fork of Beefhide Creek

County: Pike

Receiving Waters Impacted: Petty's Fork

II. Socioeconomic Demonstration

1. Define the boundaries of the affected community:

(Specify the geographic region the proposed project is expected to affect. Include name all cities, towns, and counties. This geographic region must include the proposed receiving water.)

The proposed project will be located on Petty's Fork of Long Fork near the community of Etty in Pike County. The proposed receiving stream channel will be Petty's Fork of Long Fork of Shelby Creek of the Levisa Fork of the Big Sandy River.

2. The effect on employment in the affected community:

(Compare current unemployment rates in the affected community to current state and national unemployment rates. Discuss how the proposed project will positively or negatively impact those rates, including quantifying the number of jobs created and/or continued and the quality of those jobs.)

Based upon estimates of the USDA-Economic Research Service, the unemployment rate for Pike County in 2008 was 5.9% compared to 6.4% statewide and 5.8% nationally.

The cumulative economic impact of the proposed project will be to contribute to the overall present economy in Pike County. Not only will the proposed project directly contribute to the mining industry, but will contribute to other sectors closely related to the mining industry. These sectors will include trucking companies, mine supply companies, equipment sales companies, fuel sales companies, engineering firms, and other sectors that depend upon the mining industry as a part of their accounts receivable base. Pike County heavily relies on the coal industry as a part of its viable economy, as do most counties in the region. Pike County mining accounted for 17.7% of all employment in FY 2004 and accounted for 28.3% of total county wages (KY Coal Facts). As old mining operations close, new operations must be opened in order for the local economy to sustain its current level. History has shown that a 'slow down' in the coal industry directly impacts differing business sectors within the region.

While mining, retail, and services employed the greatest percentages of workers in Pike County in 2004, the mining, public administration, and information sectors provided the highest average weekly wage (U.S. Department of Labor, Bureau of Labor Statistics). The mining industry paid an average weekly wage of \$970.48. It is estimated that the proposed surface mining operation will pay out an annual payroll of approximately \$2,018,600 to approximately 40 employees. Additionally, the proposed mining project would support employment for sectors that provide a service to the mining industry, i.e. material sells equipment sells/rentals, etc. The money paid out would be circulated throughout the community and help create a local healthy economy. The total number of American jobs created both directly and indirectly by the domestic mining industry was more than 3 times the number of workers directly involved in mining (KY Coal Facts). Thus, approximately 120 people would be indirectly impacted by the proposed deep mining operation, in addition to the 40 persons/families directly related.

The proposed surface mining operation will include new facilities that will possibly create employment for persons currently unemployed or for persons currently working at other mining facilities that are nearing completion, and perhaps will become unemployed if new job opportunities are not presented. The jobs created by the proposed operation will be permanent during the life of the operation. Additionally, the proposed operation may possibly create jobs indirectly related to the operation as additional mining operations create demands for operational supplies. Thus, the 20 employees needed to conduct the proposed mining operation will be able to continue working within the mining industry.

The 2000 census results showed that Pike County had a total population of 68,736 and predicted a population by 2008 of 65,331, a decrease of 5%. The decrease in population may result from relocations due to unavailable employment. Twenty-three percent of Pike County residents lived below the poverty range in 2004. The average annual household income for residents residing in Pike County in FY 2004 was \$27,625. The proposed mining operation will aid in raising the average annual household income and will help increase job opportunities in the region.

II. Socioeconomic Demonstration- continued

3. The effect on median household income levels in the affected community:

(Compare current median household income levels with projected median household income levels. Discuss how proposed project will positively or negatively impact the median household income in the affected community including the number of households expected to be impacted within the affected community.)

The median household income level for Pike County in 2008 was \$32,382 (USDA-Economic Research Service). Jobs continued by the proposed project would produce an average annual income per employee of approximately \$50,465, which is approximately 64% higher than the county median household income. Continuation of employment for the proposed operation would positively impact approximately 40 households directly within the surrounding community and approximately 120 households indirectly. The market value of surrounding taxable property would increase over time with continued quality paying employment, such as offered by the proposed project. Additionally, the continued employment would aid with educational opportunities, better health care, and the provision of everyday basic necessity needs (ie. food, shelter, and clothing).

4. The effect on tax revenues of the affected community:

(Compare current tax revenues of the affected community with the projected increase in tax revenues generated by the proposed project. Discuss the positive and negative social and economic impacts on the affected community by the projected increase.)

The mining industry contributes to the local tax base through taxes on real and personal property, which in turn funds public services. During active stages of a mining operation, the property is assessed at a higher value when real property taxes are determined. Prior to mining activities or post mining activities, the idle property has a much lower value and property taxes paid do not contribute as much to the local economy. Personal property taxes are levied on the equipment utilized during a mining operation. A surface mining operation requires the purchase and use of numerous, very expensive, pieces of equipment during the life of the operation. The purchase of mining equipment drives the industry's sizable contribution to the personal property tax base because new equipment is expensive and depreciates rapidly. Property tax payments will be received from the operator during the life of the project, otherwise if not permitted, property tax payments received by Pike County would be a lesser amount. The state severance tax is a gross receipt tax levied on businesses that sever, extract, and/or produce natural resource products, including coal, in Kentucky. The goal of the severance tax is to provide producing counties with funds to develop alternative industries to sustain the communities in the future once this natural resource is exhausted. The proposed operation would generate approximately \$4,057,061 (based on a minimum of \$0.50/ton with approximately 8,114,121 tons of recoverable reserve) in severance tax during the life span of the operation. Although a majority of the tax revenue is directed to the state, a large portion will directly benefit Pike County. During FY 2005 coal taxes were received by Pike County totaled \$2,250,524 (KY Coal Facts).

II. Socioeconomic Demonstration- continued

5. The effect on an existing environmental or public health in affected community:

(Discuss how the proposed project will have a positive or negative impact on an existing environmental or public health.)

The proposed mining operation will be performed in accordance with all state and federal regulations governing the coal mining industry to ensure environmental and public health. The proposed area has been previously logged and natural gas wells and lines have been constructed. The previous disturbances were performed without sediment control in-place, thus, excessive sediment was allowed to enter the receiving stream channel. The proposed mining operation will provide sediment control via sediment control ponds that will be located downstream from the proposed disturbance areas and downstream from a majority of the previous disturbance areas. The proposed sediment control ponds will capture sediment runoff from the proposed surface disturbance areas as well as from the previously disturbed areas. The sediment control structure will allow the receiving stream to recover from previous sedimentation and prior to removal of said sediment control ponds all disturbed areas, previous and proposed, will be revegetated. This will create a better habitat for aquatic organisms within the receiving stream channel.

6. Discuss any other economic or social benefit to the affected community:

(Discuss any positive or negative impact on the economy of the affected community including direct and or indirect benefits that could occur as a result of the project. Discuss any positive or negative impact on the social benefits to the community including direct and indirect benefits that could occur as a result of the project.)

Due to the economic impact of the coal industry throughout Kentucky in 2004, in addition to 15,012 persons working at the mines, 6,021 persons worked in factories making everything from mining equipment to home appliances; 2,617 persons drove coal trucks and cargo trucks, worked at rail yards, etc.; 12,704 persons worked in warehouses, sold clothing, appliances, furniture, in retail stores, etc.; 12,470 persons worked in banks, law offices, engineering firms, accounting firms, and other service businesses; 4,366 persons built homes, offices, factories, and highways; and 7,968 others were teachers, government officials, and a wide variety of other professions and occupations. (KY Coal Facts)

The mining industry accounted for 3,942 jobs directly related to mining in 2004 in Pike County and made up 28.3% of the total labor force. Wages paid out to miners in Pike County in 2004 totaled \$198,932,9256, comprising 17.7% of the county's total wages with an average weekly salary of \$970.48.

III. Alternative Analysis

1. Pollution prevention measures:

(Discuss the pollution prevention measures evaluated including the feasibility of those measures and the cost. Measures to be addressed include but are not limited to changes in processes, source reductions or substitution with less toxic substances. Indicate which measures are to be implemented.)

This operation will use surface mining techniques to recover coal reserves. Existing roads and infrastructure will be used reducing impacts from additional construction. Flow from this permit area is required to pass through a sediment structure which is engineered to meet SMCRA guidelines and KPDES discharge limitations. An alternative to this removal method would be that of deep mining. Coal removal by deep mining methods of the proposed reserves is impractical, as the coal beds within the reserve area cannot be mined via the deep mining method due to the nature of the reserves (partings, quality of roof and floor rock, and seam thickness).

An on-site wastewater treatment facility would be difficult. The cost of the treatment facility alone (\$50,000 - \$100,000) would make this alternative difficult. Other costs associated with a treatment facility would include employee salaries of \$40,000/year/employee, chemical costs of \$50,000/ year or more, miscellaneous equipment purchase costs of \$50,000 per year, maintenance costs of \$10,000/year. Upon completion of mining operations the removal of the wastewater treatment facility would cost \$5,000 - \$8,000. A waste water treatment facility designed to treat mine run-off would primarily use a series of water holding tanks and chemicals such as flocculants to reduce sediment and dissolved mineral loads in the water. As such, it would be performing the same treatment methods as with the use of ponds, but at a higher cost.

2. The use of best management practices to minimize impacts:

(Discuss the consideration and use of best management practices that will assist in minimizing impacts to water quality from the proposed permitted activity.)

During the lifetime of the proposed mining activity, the operator will implement best management practices that will aid in the avoidance of possible impacts on aquatic resources. Best management practices considered and will be implemented in appropriate situations include, but are not limited to, any of the following, singly or in combination: basins, diversion ditches, filter strips, land grading & reshaping, maintenance of a 100' buffer zone around streams, minimization of surface disturbance, mulching, placement of rip-rap, rapid revegetation (especially along stream banks), rock check dams, silt fences, straw bale barriers, stream bank stabilization, sumps, and work in periods of no or low flow or dry weather.

3. Recycle or reuse of wastewater, waste by-products, or production materials and fluids:

(Discuss the potential recycle or reuse opportunities evaluated including the feasibility of implementation and the costs. Indicate which of, of these opportunities are to be implemented)

The applicant is proposing one (3) discharge locations (sedimentation ponds) that will discharge into Petty's Fork of Left Fork of Long Fork. The proposed discharge points will control runoff from approximately 34.0 surface disturbance acres via sedimentation pond and assuming that the pond maintains a full volume of water, the total volume of water available for recycling uses each month would be approximately 242,400 gallons (based on proposed pond capacity). Approximately 20,000 gallons of stored water each month (during the months of June, July, and August each year) could be reused as a dust suppressant for road facilities. Re-distribution of the water to the surrounding surface areas would be difficult, as the surrounding slopes average 30° and runoff would create additional potential environmental damage. An additional on-site reuse of waters to be evaluated is that of utilizing the water during reclamation operations. While some water may be utilized within hydroseeders during reclamation, the total amount (approximately 2,000 – 3,000 gallons) utilized would not eliminate the discharges generated during the mining operation. The total amount to be reused onsite would be about 23,000 gallons during those months of highest water use. This would leave an excess of at least 219,400 gallons per month.

In order to recycle the additional amount of generated wastewater to potable drinking water, the discharge would have to be transferred to the City of Pikeville drinking water treatment facility located approximately 10 miles north of the proposed discharge location within the city of Pikeville. Thus, the cost associated with the transfer of the discharges to the treatment facility would be as follows: \$2.00/linear foot for an eight inch diameter PVC pipe; approximately \$60.00/hour for labor(4 man crew @ \$15.00/hr. each); approximately \$10,000 per pumping station (discharge must travel uphill); \$500,000 for obtaining property rights; treatment facility costs of approximately \$10/day for the life of the mine (estimated life of 15 years). Thus, the total costs would be calculated as follows: pipe cost = \$2.00 X 52,800 feet = \$105,600+ labor costs = \$60.00 X 600 hours = \$36,000 + 3 pumping station = \$30,000 + property rights = \$500,000 + treatment costs = \$10 X 5,475 days = \$54,750; for a total cost of \$726,350.

III. Alternative Analysis - continued

4. Application of water conservation methods:

(Discuss the potential water conservation opportunities evaluated including the feasibility of implementation and the costs. Indicate which of, of these opportunities are to be implemented)

Re-using the captured storm water would conserve the stream. Thus, the water conservation procedure for the proposed mining operation will be to re-use the captured storm water for on-site dust control, hydroseeding operations, and where possible, irrigation operations. (The requirement for water conservation via irrigation methods is slope readings of no greater than 6%).

5 Alternative or enhanced treatment technology:

(Compare feasibility and costs of proposed treatment with the feasibility and costs of alternative or enhanced treatment technologies that may result in more complete pollutant removal. Describe each candidate technology including the efficiency and reliability in pollutant removal and the capital and operational costs to implement those candidate technologies. Justify the selection of the proposed treatment technology.)

This operation will use surface mining techniques to recover coal reserves. Existing roads and infrastructure will be used reducing impacts from additional construction. Flow from this permit area is required to pass through a sediment structure which is engineered to meet SMCRA guidelines and KPDES discharge limitations. An alternative to this removal method would be that of deep mining. Coal removal by deep mining methods of the proposed reserves is impractical, as the coal beds within the reserve area cannot be mined via the deep mining method due to the nature of the reserves (partings, quality of roof and floor rock, and seam thickness).

An on-site wastewater treatment facility would be difficult. The cost of the treatment facility alone (\$50,000 - \$100,000) would make this alternative difficult. Other costs associated with a treatment facility would include employee salaries of \$40,000/year/employee, chemical costs of \$50,000/ year or more, miscellaneous equipment purchase costs of \$50,000 per year, maintenance costs of \$10,000/year. Upon completion of mining operations the removal of the wastewater treatment facility would cost \$5,000 - \$8,000. A waste water treatment facility designed to treat mine run-off would primarily use a series of water holding tanks and chemicals such as flocculants to reduce sediment and dissolved mineral loads in the water. As such, it would be performing the same treatment methods as with the use of ponds, but at a higher cost.

III. Alternative Analysis - continued

6. Improved operation and maintenance of existing treatment systems:

(Discuss improvements in the operation and maintenance of any available existing treatment system that could accept the wastewater. Compare the feasibility and costs of improving an existing system with the feasibility and cost of the proposed treatment system.)

In order to recycle the additional amount of generated wastewater to potable drinking water, the discharge would have to be transferred to the City of Pikeville drinking water treatment facility located approximately 10 miles north of the proposed discharge location within the city of Pikeville. Thus, the cost associated with the transfer of the discharges to the treatment facility would be as follows: \$2.00/linear foot for an eight inch diameter PVC pipe; approximately \$60.00/hour for labor(4 man crew @ \$15.00/hr. each); approximately \$10,000 per pumping station (discharge must travel uphill); \$500,000 for obtaining property rights; treatment facility costs of approximately \$10/day for the life of the mine (estimated life of 15 years). Thus, the total costs would be calculated as follows: pipe cost = \$2.00 X 52,800 feet = \$105,600+ labor costs = \$60.00 X 600 hours = \$36,000 + 3 pumping station = \$30,000 + property rights = \$500,000 + treatment costs = \$10 X 5,475 days = \$54,750; for a total cost of \$726,350.

7. Seasonal or controlled discharge options:

(Discuss the potential of retaining generated wastewaters for controlled releases under optimal conditions, i.e. during periods when the receiving water has greater assimilative capacity. Compare the feasibility and cost of such a management technique with the feasibility and cost of the proposed treatment system.)

The proposed sediment control structures have been designed to control a 10 year/24 hour storm event. This means that the ponds are designed and will be constructed to handle a rainfall event within a 24 hour period of the intensity such as only normally occurring once within a 10 year period. Thus, once the proposed ponds are filled with water the receiving stream flow will be that of pre-mining conditions. The ponds will fill to the spillway elevation and will flow through the spillway and will maintain a hydrologic controlled release in accordance with normal stream flow rates. During high flow conditions the pond will release water at such a rate that normal stream flow conditions are maintained. Additionally, during low flow conditions the ponds will retain water that will in-turn maintain normal stream flow conditions.

III. Alternative Analysis - continued

8 Land application or infiltration or disposal via an Underground Injection Control Well

(Discuss the potential of utilizing a spray field or an Underground Injection Control Well for shallow or deep well disposal. Compare the feasibility and costs of such treatment techniques with the feasibility and costs of proposed treatment system.)

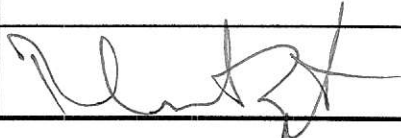
See AT-III

9 Discharge to other treatment systems

(Discuss the availability of either public or private treatments systems with sufficient hydrologic capacity and sophistication to treat the wastewaters generated by this project. Compare the feasibility and costs of such options with the feasibility and costs of the proposed treatment system.)

See AT-III

IV Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Title:	Robert J. Zik, Vice-President	Telephone No.:	(606) 523-4444
Signature:		Date:	12/2/09

III. Alternative Analysis – continued

8 Land application or infiltration or disposal via an Underground Injection Control Well

(Discuss the potential of utilizing a spray field or an Underground Injection Control Well for shallow or deep well disposal. Compare the feasibility and costs of such treatment techniques with the feasibility and costs of proposed treatment system.)

The potential for on-site disposal of wastewater was investigated. The construction of injection wells on-site was investigated as an alternative to the proposed discharges. The injection wells would be approximately 8" in diameter and approximately 300' in depth and would hold a volume of water of approximately 785 gallons per well. Thus, approximately 100 wells would be needed to ensure no discharge will occur. The estimated costs associated with the wells would be approximately \$20/linear foot, thus, 100 wells at 300' in depth would cost approximately \$600,000.

Abandoned underground mine works within the Amburgy coal bed are present within/adjacent to the proposed area and was evaluated as a possible site for disposal of runoff from the disturbed areas. The abandoned underground works are located above drainage, thus, a surface 'blowout' would be a threat to environmental and public safety.

9 Discharge to other treatment systems

(Discuss the availability of either public or private treatments systems with sufficient hydrologic capacity and sophistication to treat the wastewaters generated by this project. Compare the feasibility and costs of such options with the feasibility and costs of the proposed treatment system.)

A public wastewater treatment facility operated by the City of Pikeville is located approximately 10 miles north of the proposed discharge site. In order to transfer the discharge a pipeline system would be needed. The estimated costs associated with the pipeline construction would be approximately \$2.00/linear foot for an eight inch diameter PVC pipe; approximately \$60.00/hour for labor (4 man crew @ \$15.00/hr. each); approximately \$10,000 per pumping station (discharge must travel uphill); \$500,000 for obtaining property rights; treatment facility costs of approximately \$10/day for the life of the mine (estimated life of 15 years). Thus, the total costs would be calculated as follows: pipe cost = \$2.00 x 52,800 ft. = \$105,600 + labor costs = \$60.00 X 600 hours = \$36,000 + 3 pumping station = \$30,000 + property rights = \$500,000 + treatment costs = \$10 X 5,475 days = \$54,750; for a total cost of \$726,350. This alternative would result in additional environmental impacts resulting from construction of a pipeline.

A possible alternative to piping water to the treatment facility would be the use of trucks to transport water. This alternative would pose additional costs of approximately \$100,000 (70,000 gallon tank + labor + pipe system) in the construction of a system of pipes and collection tanks to collect and hold the water prior to loading tank trucks. There would also be transportation costs of approximately \$2.25 per mile. If the total amount of water collected per month were 67,451 gallons (based on proposed pond volumes), it would need 34 round trips per month using a 2000-gallon truck. Thus, 34 trips at a distance of 20 miles at \$2.25/mile generates a cost of \$1,530/per month, \$275,400 total over the life of the project, plus the initial \$100,000 investment, plus the approximately \$10,000 cost to remove the system once the project is complete. This alternative would also result in additional impacts to the environment in the form of a loss of about 67,451 gallons of water per month to the local watershed. This may constitute material damage to the hydrologic balance within and outside of the permit area. In addition, implementing this alternative would result in increased risks to public safety because it would necessitate repeated daily trips by large water tankers on the small rural local roads.